

## **Sweatband using mono filament yarn for a Cap**

### **BACKGROUND OF THE INVENTION**

#### **1. Field of the Invention**

The present invention is related to a field of headwear and, more particularly, to the sweatband which has a special feature of keeping the shape of crown in addition to the appropriate elasticity.

#### **2. Description of the Prior Art**

A typical baseball-style cap generally includes a crown main body which is the main portion having and has one or more sheets of panels, a visor portion which is attached to the bottom of front of said crown portion secured to the forward edge of the crown portion, a sweatband which is attached to under circular portion of inside of said crown, the lower part of the inside of the crown, and a size controller which is attached to under portion of rear side of said crown the underside of the rear of the crown.

And a cap designed to control size without size controller has been developed. The cap has no size controller which has been attached to the bottom of front of said crown portion and said sweatband is extended up to rear side of said crown having its own elasticity due to the spandex yarn inside of it. Thus, when worn, the cap is naturally fit for wearer's head size by the elastic sweatband.

Alternatively, cap sweatbands have been constructed

that include an elastic band made of fabric which includes spandex yarn, giving the sweatband size flexibility while eliminating the size controller.

It has been found, however, that caps relying on spandex sweatbands for sizing exert pressure against the wearer=s head which can become uncomfortable after the cap is worn for an extended period of time. In addition, when being taken off, as the rear side of crown of cap is may be drooped down, the shape of the cap will is not be kept.

It is, accordingly, needed an improvement to feature comfortable feeling without pressure even when worn for extended time in addition to having elasticity as well as keeping shape of rear side of crown of cap when being taken off.

Accordingly, a need exists for an improved sweatband that gives comfortable feeling even when worn for a long time addition to have elasticity as well as keep the shape of rear side of crown of cap when taken off.

## **SUMMARY OF THE INVENTION**

In view of the foregoing, one object of the present invention is to provide headwear with a sweatband that does not exert undue pressure on the head when worn.

Another object of the present invention is to provide the a sweatband which keeps the shape of rear side of crown of cap.

The A further object of the present invention is to

provide the a sweatband, which prevents sweat from running down due to its high sweat absorbing function having excellent sweat-absorbing capability.

In accordance with these and other objects, the sweatband according to the present invention is woven with the present invention is directed to a sweatband mainly used for headwear and woven by properly arranging mono filament yarn wrap-way warp-way and nylon multifilament yarn weft-way or with by properly mixed polyester multifilament yarn each way without additional needing the stitching portion. And the said The sweatband does not contain polyurethane is made to have elasticity as a whole and is evenly elastic because it has the effect to be stretched by the structure of the textile and said multifilament yarn weft-way has the shape of a coil like a spring, and has the feature of having the shape of filing up grey yarn being twisted at regular intervals. In addition, for using the said sweatband to headwear, the sweatband can be applied both to the headwear necessary to have the elasticity of sweatband without additional size controller and to the headwear unnecessary to have the elasticity as it has the size controller.

#### **BRIEF DESCRIPTION OF THE DRAWINGS**

Figure 1 is a right view of a free size cap of pre-existing art which rear side of crown is drooped down;

Figure 2 is a seetioned sectional view of partial side of a cap to which a sweatband made of monofilament yarn of the

present invention is attached;

Figure 3 is a textile structural view of sweatband of the present invention by another embodiment.

#### **DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT**

In describing preferred embodiments of the invention illustrated in the drawings, it is to be understood that these embodiments are given by way of illustration only. It is not intended that the invention be limited in its scope to the details of construction and arrangement of components set forth in the following description or illustrated in the drawings. Also, in describing the preferred embodiments, specific terminology will be resorted to for the sake of clarity. It is to be understood that each specific term includes all technical equivalents which operate in a similar manner to accomplish a similar purpose.

The present invention is directed to a sweatband suitable for use with headwear of various types, but is described herein in connection with a baseball-style cap as shown in Figure 2. It is understood that the inventive sweatband may also be used with other types of headwear or even alone.

Figure 1 is a right view of a free size cap of pre-existing art which rear side of crown is drooped down. As shown in Figure 1, the free size cap of pre-existing art is composed of a crown portion 1 which is made of several a plurality of panels, a visor portion 2 that is ~~attached the inner edge of the~~

under portion of the crown secured to the forward edge of the crown, and the cap has no size controller elastic sweatband which that is secured to the lower peripheral edge of the interior of the crown, and does not have size controller. And the cap is naturally fit for naturally fits to wearer's head having no need to control the size when worn as spandex included the elastic sweatband having spandex is extended. But, as pointed above, the free size cap of pre-existing art may cause the problem of giving severe pressure feeling in head when worn for an extended time and, when being taken off, as the rear side of the crown 3 of cap tends to be drooped down, the original shape of the cap will is not be kept causing a bad view.

Figure 2 is a sectioned sectional view of partial side of a cap to which sweatband made of monofilament yarn of the present invention is attached. As shown in Figure 2, like free size caps of pre-existing art, it is externally composed of a crown portion 4 which is made of several includes a plurality of panels, a visor portion 5 which is attached to front portion of lower portion of said crown secured to the forward edge of the crown, a sweatband 6 which is attached the inner edge of the under portion of the crown, and the cap has no size controller secured to the lower peripheral edge of the interior of the crown, and has no size controller. The sweatband 6 is woven in a cylinder shape without an additional stitched portion, and may be single ply or two ply according to the woven shape with the resulting effect that the sweatband is stretchable as a result of the structure of the textile. And said sweatband 6 is

composed of mono filament yarn warp-way and nylon multi filament yarn weft-way, of which material of yarn is nylon or polyester, has a width that is preferably within the range of 25mm to 70mm the monofilament yarn warp-way and two-ply multifilament yarn weft-way to have a flat cylinder shape without the stitched portion, and it may be made of the monofilament yarn warp-way and a single ply multifilament yarn weft-way. The sweatband does not contain polyurethane and is evenly elastic because it has the effect to be stretched by the structure of the textile. And the material of sweatband 6 can be nylon or polyester, and has a width that is preferably within the range of 25mm to 70mm. The monofilament yarn warp-way plays a role to keep the shape of rear side of the crown of a cap without being drooped down.

When being taken off, original the shape of the rear side 7 of the crown of cap is sustained maintained without being drooped down, and the sweatband also provides excellent sweat absorbing capability and does not exert give undue pressure such that the cap remains to give comfortable feeling when worn for extended time periods a long time. In addition, for using the said sweatband to of a headwear, the sweatband it can be applied both to the headwear necessary to have the elasticity of sweatband without additional size controller and to the headwear necessary to have the elasticity as it has the size controller of sweatband with additional size controller. The yarn used to produce for the sweatband is processed by a high temperature method treating and piece dyeing method, and the multifilament yarn weft-way has the shape of a coil like a spring, and has the

feature of ~~twist~~ being twisted at regular intervals.

Figure 3 is a textile structural view of sweatband of the present invention by another embodiment. As shown in Figure 3 mentioned above, textile structure of the sweatband according to the present invention is formed by mixing the monofilament yarn ~~wrap-way~~ warp-way and ~~nylon~~ the multifilament yarn weft-way, of which material ~~of~~ yarn ~~is~~ can be nylon or polyester. Said The monofilament yarn ~~wrap-way~~ warp-way plays a role to keep the shape of rear side of the crown of a cap without being drooped down. In addition, as shown in Figure 3, According to the condition like this embodiment, for the sweatband, ~~for which~~ monofilament yarn 8 and multifilament yarn 9 ~~are woven~~ may be arranged together ~~wrap-way~~ warp-way and ~~nylon~~ multifilament yarn 10 ~~may also be woven~~ weft-way ~~may be used~~.

The foregoing descriptions and drawings should be considered as illustrative only of the principles of the invention. The invention may be configured in a variety of shapes and sizes and is not limited by the dimensions of the preferred embodiment. Numerous applications of the present invention will readily occur to those skilled in the art. For example, the headband may be incorporated into hats, caps and visors of other styles, or may be used alone. Therefore, it is not desired to limit the invention to the specific examples disclosed or the exact construction and operation shown and described. Rather, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.